

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Walrath, George A. Confirmation No. 5712
Serial No: 10,611,767 Art Unit: 1794
Filed: July 1, 2003 Examiner: Kiliman, Leszek B.
For: Extruded Variegated Plastic siding Panels

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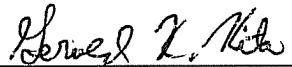
Sir:

TRANSMITTAL OF AN APPEAL BRIEF

Pursuant to 37 C.F.R. § 41.37, Appellant submits an appeal brief. The appeal brief is timely filed under 37 C.F.R. § 41.37(a), within two months of the Notice of Appeal filed July 18, 2008. The appeal brief is being filed electronically.

The Commissioner is hereby authorized to charge any fees associated with this communication, or credit any overpayment, to Deposit Account No. 04-1679.

Respectfully Submitted,



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I. Real Party in Interest

The real party in interest is CertainTeed Corporation owner of the application and the inventions described therein.

II. Related Appeals and Interferences

There are no related appeals or interferences.

III. Status of Claims

Claims 1-51 (Canceled)

Claims 52-76 (Rejected)

IV. Status of Amendments

An amendment (01/14/2008) in response to the final rejection (10/25/2007) was entered after filing a Request for Continued Examination. The amendment (01/14/2008) canceled claims 1-51 and added new claims 52-76 that are under present appeal from a non-final rejection (04/08/2008).

V. Summary of Claimed Subject Matter

A variegated polymeric article 11 includes, an underlying tinted substrate 15 covered by a capstock 13 and a plurality of color streaks 19a.

The capstock 13 comprises a plurality of color streaks 19a and a substantially clear capstock layer 13 through which coloration of the underlying tinted substrate 15 is observed to

provide a three-dimensional effect of the color streaks 19a above the underlying tinted substrate 15 and in the substantially clear capstock layer 13.

(Appellant's specification at [0026]) The term "substantially clear" layer, for the purposes of the present invention, describes a film-like layer through which the coloration of the underlying substrate 15 may be readily observed, that is, the underlying substrate color contributes to the apparent color of the final product including the substrate covered with the substantially clear layer. This contrasts to typical siding products which provide substantially all of the visible color of the product within the capstock, such that the substrate provides no significant contribution to the visible color.

(Appellant's specification at [0048]) As the capstock resin 17 material and the streaker pellets 19 are heated in the fourth zone 130, the resinous component of the streaker pellets 19 tends to encapsulate the inorganic pigment material so that it does not disperse well into the viscous capstock resin 17 material. When subsequently extruded through the coextrusion die 16, the accent color pellets 19 tend to stretch, and do not disperse to any significant degree in the extruded panel 11. This forms accent color streaks 19a that simulate wood grain on the surface of the panel 11. Further, because the accent color streaks 19a are located in the clear capstock layer 13, while the underlying vinyl substrate material 15 is colorized (tinted), a three-dimensional effect is created within the variegated siding panel 11.

(Appellant's specification at [0051]) Further, by placing the accent color streaks 19a in the acrylic capcoat layer 13 above a colored substrate layer 15, a variegated siding panel 11 may

be produced with a three-dimensional wood grain effect that more closely simulates natural wood grain sidings.

VI. Grounds of Rejection To Be Reviewed on Appeal

The single ground of rejection is whether claims 52-76 are unpatentable under 35 U.S.C. § 103(a) in view of Dorchester et al. US 5,869,176.

VII. Argument

A. The Rejection under 35 U.S.C. § 103(a) in view of Dorchester et al. US 5,869,176.

B. Subheading: Claims 52-76

The matter to be resolved is whether there are ascertained differences between claims 52-76 and the prior art reference Dorchester and whether the ascertained differences are obvious.

The framework for the objective analysis for determining obviousness under 35 U.S.C. 103 will now be discussed.

C. Determining the scope and content of the prior art, Dorchester et al.

Dorchester et al. (col. 2, ln. 36 et seq.) states, Typically, pigments, in the accent color pellets are selected to contrast to some degree with the surrounding or background color of the capstock base material or sometimes the substrate material of the panel. The accent color may be lighter or darker than the surrounding background.

Dorchester et al. (col. 3, ln. 62 et seq.) states, It has been common in the industry to add pigments to the base material to supply the "background" color for the capstock. With the present

invention, this addition is not necessary. By adjusting the proportion of PMS in the accent color pellets, a controlled quantity of the pigment can be dispersed into the base material.

Dorchester et al. (col. 8, ln. 7 et seq.) states, With the present invention, by using a lower proportion of PMS to the low vicat softening point temperature resin in the pellets, an increased, but still controllable, amount of the accent color may be allowed to disperse into the capstock base material, thereby imparting a slight color to the background, and softening the edges of the streaks. This effect is referred to as "soft streaking.

Dorchester et al. (Claim 15) recites, in part, "the accent color pellets provide a background color and at least one accent color to the capstock."

D. Ascertaining the differences between the claimed invention and the prior art reference Dorchester et al.

Appellant's Claim 52 recites, a capstock, wherein the capstock comprises a plurality of color streaks and a substantially clear capstock layer through which coloration of the underlying tinted substrate is observed to provide a three-dimensional effect of the color streaks above the underlying tinted substrate and in the substantially clear capstock layer.

E. Resolving the level of ordinary skill in the pertinent art.

The reasons for rejecting new claims 52-76 are stated in a non-final rejection (10/25/2007) that examined canceled claims 1-51. The rejection of the canceled claims states, "The prior art (Dorchester US 5,869,176) clearly teaches that the pigments in the surface layer can be varied, it would have been obvious .. to have varied the combination of materials based on what appearance was desired. This would include having a transparent surface layer with accent colors as claimed." However, the new claims 52-76 are different from the rejected canceled

claims, by reciting that coloration of the underlying tinted substrate is observed. Further, the new claims 52-76 recite a three-dimensional effect of the color streaks above the underlying tinted substrate. Moreover, the filing of the new claims is accompanied by Remarks that point out an unexpected result discussed in the previously filed Affidavit of the inventor.

Accordingly, the canceled claims 1-51 were rejected for reciting only a transparent surface layer with accent colors, and further, as being obvious in view of Dorchester et al. when Dorchester et al. is modified to provide a transparent layer in the capstock. The rejection (10/25/2007) sought to modify Dorchester et al. so as to provide a transparent layer, without a prior art reference providing a teaching, suggestion or motivation for the modification. Further, the modification can only be accomplished by eliminating or disregarding the Dorchester et al. teaching of using color pellets to disperse pigment into the base material of a capstock to supply background color for the capstock.

Dorchester et al. (col. 3, ln. 62 et seq.) discusses, "It has been common in the industry to add pigments to the base material to supply the "background" color for the capstock. With the present invention [of Dorchester et al.], this addition is not necessary. By adjusting the proportion of PMS in the accent color pellets, a controlled quantity of the pigment can be dispersed into the base material." (Dorchester et al. Claim 15) recites, in part, "the accent color pellets provide a background color and at least one accent color to the capstock."

In view of the above-described scope and content of Dorchester et al., the reference teaches using color pellets to disperse the pigment into the base material of the capstock to

supply background color for the capstock. And adding pigment to the base material is rendered unnecessary by using color pellets to disperse the pigment into the base material of the capstock.

Thus, Dorchester et al. teaches using color pellets to disperse the pigment into the base material of the capstock to supply background color for the capstock, which does not expressly or inherently disclose a transparent capstock. Moreover, Dorchester et al. does not expressly or inherently disclose, what the new claims 52-76 recite, i.e., coloration of the underlying tinted substrate is observed, and a three-dimensional effect of the color streaks above the underlying tinted substrate.

Moreover, the reference does not expressly or inherently disclose the three-dimensional effect of the claimed invention, of a substantially clear capstock layer through which coloration of the underlying tinted substrate is observed to provide a three-dimensional effect of the color streaks above the underlying tinted substrate and in the substantially clear capstock layer. Using color pellets to disperse pigment into the base material of the capstock to supply background color as in Dorchester et al. inherently obscures the underlying substrate from observation.

Appellant's specification states, at paragraph [0048], "As the capstock resin 17 material and the streaker pellets 19 are heated in the fourth zone 130, the resinous component of the streaker pellets 19 tends to encapsulate the inorganic pigment material so that it does not disperse well into the viscous capstock resin 17 material. When subsequently extruded through the coextrusion die 16, the accent color pellets 19 tend to stretch, and do not disperse to any significant degree in the extruded panel 11." This contrasts with the Dorchester et al. disclosure

that uses color pellets to disperse pigment into the base material of the capstock to supply background color.

Accordingly, Appellant's specification does not encompass the teaching in Dorchester et al. (col. 3, ln. 62 et seq.) to disperse pigment from pellets into a base material of a capstock to supply background color for the capstock. Stated differently, Appellant's claim 52 interpreted by the specification does not reasonably encompass the Dorchester et al. teaching of using color pellets to disperse pigment into the base material of a capstock to supply background color for the capstock.

Although Dorchester et al. teaches using color pellets to disperse pigment into the base material of a capstock to supply background color for the capstock, the non-final rejection (10/25/2007) of canceled claims 1-52 regards Dorchester et al. as teaching a transparent layer. But finding a factual basis of a transparent layer in Dorchester et al eliminates or disregards the teaching of the reference, and contradicts the teaching of the reference using color pellets to disperse pigment into the base material of a capstock to supply background color for the capstock. A *prima facie* case of obviousness should not be established by eliminating, disregarding or contradicting the teachings in Dorchester et al.

The rejection incorrectly modifies the Dorchester et al. to make a transparent layer by eliminating, disregarding or contradicting the Dorchester et al. teaching to use color pellets to disperse pigment into the base material of a capstock.. The rejection does not establish a *prima facie* case of non-obviousness by not using the teachings of the applied reference.

Further, the rejection (10/25/2007) incorrectly modifies Dorchester et al. without a publication providing a teaching, suggestion or motivation, for the modification of the Dorchester et al. teaching of using color pellets to disperse pigment into the base material of a capstock to supply background color for the capstock and provide a transparent layer.

Moreover, Appellant's claim 52 interpreted by the above-quoted specification does not reasonably encompass the Dorchester et al. teaching of using color pellets to disperse pigment into the base material of a capstock to supply background color for the capstock. A rejection can not be factually based on the prior art reference Dorchester et al. when the claims do not reasonably encompass the teaching of the reference.

F. Unexpected Three-dimensional Effect

Moreover, Claim 52 recites a three-dimensional effect of an underlying layer visible under the recited substantially clear capstock layer, and the color streaks visible over the underlying layer and in the clear capstock layer. Thus, Claim 52 recites an unexpected three-dimensional effect, which recites patentably more than the non-final rejection (10/25/2007) that regards canceled claims 1-51 as, "having a transparent surface layer with accent colors as claimed."

An affidavit of George Walrath was notarized 04/17/2007 and filed (04/18/2007), which provides evidence of unexpected results from testing actual samples of products.

Section 9 of the affidavit states, "In each example in Dorchester et al. the capstock has a background color." And, "Nowhere does Dorchester et al. mention the concept of a substantially clear capstock."

Section 7 of the affidavit states, "I believe [the claimed invention] inventive method of the pending U.S. patent application serial number 10/611,767 achieves the goal of producing a U.V. stable variegated siding panel that is unique in the depth of color as it uses the substrate color to provide the base color and the variegation is only in the cap layer, thus providing a 3-dimensional effect of the grain."

Section 12 of the affidavit states, "My invention achieved surprising results in terms of the depth of color, versus a product with a colored capstock, As evidence of this, I am attaching two samples – a prior art sample with color in the capstock and a second sample to demonstrate my invention, without color in the capstock." [Underline emphasis added.]

Section 13 of the affidavit states, "As demonstrated in the samples, the invention provides surprisingly excellent depth of color and the ability to achieve a more realistic woodgrain appearance than the prior art."

Accordingly, actual samples referred to in the affidavit included a prior art sample with color in the capstock (consistent with Dorchester et al.), and an article without color in the capstock "unique in the depth of color as it uses the substrate color to provide the base color and the variegation is only in the cap layer, thus providing a 3-dimensional effect of the grain" (affidavit section 7) and (consistent with the invention). In accordance with MPEP 2144.09 VII, the affidavit rebuts any *prima facie* case of obviousness based on structural similarity by proof that the claimed invention possess unexpected advantages or superior properties. In the claimed invention the unexpected advantages or superior properties resides in the 3-dimensional effect observed by the Affiant.

Accordingly, Claim 52 describes a three-dimensional effect, supported by the affidavit to rebut the rejection of canceled claims 1-51 applied to the new claims.

G. Conclusion

In view of the reasons supporting patentability of the rejected claims, Appellants respectfully request reversal of the non-final Rejection of 04/16/2008.

VIII. Claims Appendix

52. A variegated polymeric article, comprising:

an underlying tinted substrate covered by a capstock, wherein the capstock comprises a plurality of color streaks and a substantially clear capstock layer through which coloration of the underlying tinted substrate is observed to provide a three-dimensional effect of the color streaks above the underlying tinted substrate and in the substantially clear capstock layer.

53. The variegated polymeric article of claim 52 wherein said substrate comprises tinted polyvinyl chloride.

54. The variegated polymeric article of claim 52 wherein said substantially clear capstock layer is substantially untinted.

55. The variegated polymeric article of claim 52 wherein said substantially clear capstock layer comprises a methacrylic acid based resin that is substantially free of ultraviolet resistant material.

56. The variegated polymeric article of claim 52 wherein said substantially clear capstock layer comprises impact modified poly methyl methacrylate resin that is substantially free of ultraviolet resistant material.

57. The variegated polymeric article of claim 52, wherein said substantially clear capstock layer comprises a substantially clear polymer, and said color streaks are formed by weatherable pigment in an organic carrier resin.

58. The variegated polymeric article of claim 52, comprising:

an embossed surface simulating wood grain on the capstock layer.

59. The variegated polymeric article of claim 52 wherein the variegated polymeric article is shaped with a siding profile to comprise a variegated siding panel.

60. The variegated polymeric article of claim 52 wherein the variegated polymeric article is shaped with a siding profile and an embossed surface simulating wood grain on the capstock layer to comprise a variegated siding panel, and

the variegated siding panel is provided with holes at predetermined locations for fasteners to attach the panel to a building.

61. The variegated polymeric article of claim 52, wherein the substantially clear capstock layer includes an ultraviolet resistant material of less than about twelve parts per hundred in a substantially clear polymer.

62. The variegated polymeric article of claim 61, wherein the ultraviolet resistant material comprises titanium dioxide, and the substantially clear polymer comprises a methacrylic acid based resin.

63. The variegated polymeric article of claim 61, wherein the ultraviolet resistant material comprises titanium dioxide, and the substantially clear polymer comprises impact modified poly methyl methacrylate.

64. The variegated polymeric article of claim 61 wherein said substrate comprises tinted polyvinyl chloride.

65. The variegated polymeric article of claim 61, wherein the substantially clear capstock layer comprises a substantially clear polymer, and said color streaks are formed by weatherable pigment in an organic carrier resin.

66. The variegated polymeric article of claim 61, comprising:

an embossed surface configuration simulating wood grain on the capstock layer.

67. The variegated polymeric article of claim 61 wherein the variegated polymeric article is shaped with a siding profile to comprise a variegated siding panel.

68. The variegated polymeric article of claim 61 wherein the variegated polymeric article is shaped with a siding profile and an embossed surface configuration simulating wood grain on the capstock layer to comprise a variegated siding panel, and

the variegated siding panel is provided with holes at predetermined locations for fasteners to attach the panel to a building.

69. A method of manufacturing the variegated polymeric article of claim 52, comprising:

melting a tinted substrate material to provide a viscous substrate material, and extruding the viscous substrate material to form the underlying tinted substrate;

mixing pellets comprising weatherable pigment in an organic carrier resin with a substantially clear capstock material, while melting the substantially clear capstock material to provide a viscous capstock material;

mixing the viscous capstock material and the pellets prior to melting the organic carrier resin of the pellets;

mixing the viscous capstock material and the pellets while melting the organic carrier resin of the pellets to provide the weatherable pigment in a viscous organic carrier resin;

extruding the viscous capstock material together with the weatherable pigment in the viscous organic carrier resin to provide the capstock; and

laminating the capstock and the underlying tinted substrate to provide the substantially clear capstock layer through which coloration of the underlying tinted substrate is observed to provide the three-dimensional effect of the color streaks above the underlying tinted substrate and in the substantially clear capstock layer.

70. The method of claim 69 wherein laminating the capstock and the underlying tinted substrate comprises coextruding the capstock and the underlying tinted substrate.

71. The method of claim 69, comprising:

embossing a surface configuration simulating wood grain on the capstock layer.

72. The method of claim 69, comprising:

shaping the variegated polymeric article with a siding profile to comprise a variegated siding panel.

73. The method of claim 69, comprising:

embossing a surface configuration simulating wood grain on the capstock layer;

shaping the variegated polymeric article with a siding profile to comprise a variegated siding panel; and

providing the variegated siding panel with holes at predetermined locations for fasteners to attach the panel to a building.

74. The method of claim 69 wherein;

said melting a tinted substrate material to provide a viscous substrate material, and said extruding the viscous substrate material to form the underlying tinted substrate is performed in a first extruder;

said mixing pellets comprising weatherable pigment in an organic carrier resin with a substantially clear capstock material, while melting the substantially clear capstock material to provide a viscous capstock material is performed at a first temperature in a zone of a second extruder or in two zones of the second extruder;

said mixing the viscous capstock material and the pellets prior to melting the organic carrier resin of the pellets is performed at a second temperature in another zone of the second extruder;

said mixing the viscous capstock material and the pellets while melting the organic carrier resin of the pellets to provide the weatherable pigment in a viscous organic carrier resin is performed at a third temperature in a further zone of the second extruder; and

said laminating the capstock and the tinted substrate comprises coextruding the capstock and the tinted substrate in a third extruder.

75. The method of claim 69 wherein;

said mixing pellets comprising weatherable pigment in an organic carrier resin with a substantially clear capstock material, while melting the substantially clear capstock material to provide a viscous capstock material is performed at a first temperature below a softening point temperature of the organic carrier resin;

said mixing the viscous capstock material and the pellets prior to melting the organic carrier resin of the pellets is performed at a second temperature substantially at or slightly below the melting point of the organic carrier resin; and

said mixing the viscous capstock material and the pellets while melting the organic carrier resin of the pellets to provide the weatherable pigment in a viscous organic carrier resin is performed at a third temperature.

76. The method of claim 75 wherein;

said melting a tinted substrate material to provide a viscous substrate material, and extruding the viscous substrate material to form the underlying tinted substrate is performed in a first extruder;

said mixing pellets comprising weatherable pigment in an organic carrier resin with a substantially clear capstock material, while melting the substantially clear capstock material to provide a viscous capstock material is performed at the first temperature in a zone of a second extruder or in two zones of the second extruder;

said mixing the viscous capstock material and the pellets prior to melting the organic carrier resin of the pellets is performed at the second temperature in another zone of the second extruder; and

said mixing the viscous capstock material and the pellets while melting the organic carrier resin of the pellets to provide the weatherable pigment in a viscous organic carrier resin is performed at the third temperature in a further zone of the second extruder.

IX. Evidence Appendix

None

X. Related Proceedings Appendix

None